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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,604	12/21/2001	Brian G. Morin	5388	4741

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Milliken & Company
P. O. Box 1927
Spartanburg, SC 29304

EXAMINER

JUSKA, CHERYL ANN

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 07/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,604

Applicant(s)

MORIN ET AL.

Examiner

Cheryl Juska

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 6,541,554 issued to Morin et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to make tape (i.e., slit film) fibers as the fibers of the Morin patent and to make carpet backings of the fabrics of Morin. Additionally, it is asserted that the presently claimed tensile strength and scattering peak values are inherent to the Morin invention.

Claim Rejections - 35 USC § 102/103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1- 27 are rejected under 35 USC 102(e) as being anticipated by, or in the alternative, under 35 USC 103(a) as being unpatentable over US 6,541,554 issued to Morin et al.

Applicant claims a polypropylene tape fiber comprising at least 10 ppm of a nucleator compound and having a tensile strength of at least 2.3 g/den, preferably 3 g/den. Said nucleator compound is p-MDBS, 3,4-DMDBS, 2, 4, 5-TMDBS, DBS, sodium benzoate, NA-11, NA-21, or mixtures thereof. The thermoplastic fibers of the backing layer has, a shrinkage rate of less than 2%, and an x-ray scattering pattern such that the center of the scattering peak is at 0.4 degrees or lower. The tape fiber may be made into a fabric and employed as a carpet backing.

Morin discloses polypropylene fibers having improved heat and moisture shrinkage rates by the addition of a nucleating agent (abstract). Said nucleating agent may be p-MDBS, 3,4-DMDBS, 2,4,5-TMDBS, liquid 3,4-DMDBS, DBS, sodium benzoate, NA-11, NA-21, and any mixtures thereof (claim 5). The amount of nucleating agent present within the inventive fiber is at least 10 ppm; preferably this amount is at least 100 ppm; and most preferably is at least 1250 ppm (col. 3, lines 42-45). The heat-shrinkage at about 150°C in hot air is at most 11% for the

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inventive fiber; preferably, this heat-shrinkage is at most 9%; more preferably at most 8%; and most preferably at most 7% (col. 3, lines 39-42). The inventive fiber exhibits a long period of at least 20 nm as measured by small-angle x-ray scattering (claim 16). The polypropylene fibers may be slit film (i.e., tape) fibers (col. 3, lines 30-35) and may be suitable for carpet backings (col. 1, line 32-col. 2, line 10).

Thus, it can be seen that claims 1-27 are anticipated by the cited Morin patent with the exception of the claimed tensile strength and scattering peak. Morin is silent with respect to these properties. However, it is argued that these properties limitations are inherent to the Morin invention. Support for this argument is found in the use of like materials (i.e., polypropylene tape fibers containing at least 10 ppm of a nucleating agent such as p-MDBS, 3,4-DMDBS, 2, 4, 5-TMDBS, DBS, sodium benzoate, NA-11, NA-21, or mixtures thereof). It is asserted that the tensile strength and x-ray scattering pattern are properties dependent upon the polymer composition of the fiber. Hence, like fibers would have like properties. The burden is upon applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed properties would obvious have been present once the polypropylene fiber of Morin is provided. *In re Best*, 195 USPQ 433. Therefore, claims 1-27 are rejected as being anticipated by or obvious over the cited Morin patent.

6. Claims 1-27 are rejected under 35 USC 102(a) as being anticipated by, or in the alternative, under 35 USC 103(a) as being unpatentable over JP 2001-081628 issued to Inoue.

Inoue discloses a polypropylene flat or tape yarn for weaving into a primary backing to a carpet (abstract and [0012]). The polypropylene yarn contains a nucleating agent, such as

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benzylidene sorbitol and its derivatives, in an amount ranging from 0.05-2.0 wt.% ([0005] and [0008]).

Thus, it can be seen that claims 1-27 are anticipated by the cited Inoue patent with the exception of the claimed tensile strength, shrinkage rate, and scattering peak. Inoue is silent with respect to these properties. However, it is argued that these property limitations are inherent to the Inoue invention. Support for this argument is found in the use of like materials (i.e., polypropylene tape fibers containing at least 10 ppm of a nucleating agent such as DBS). It is asserted that the tensile strength, shrinkage rate, and x-ray scattering pattern are properties dependent upon the polymer composition of the fiber. Hence, like fibers would have like properties. The burden is upon applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed properties would obvious have been present once the polypropylene fiber of Inoue is provided. *In re Best*, 195 USPQ 433. Therefore, claims 1-27 are rejected as being anticipated by or obvious over the cited Inoue reference.

Claim Rejections - 35 USC § 103

7. Claims 1-27 are rejected under 35 USC 103(a) as being unpatentable over US 4,560,734 issued to Fujishita et al. in view of US 5,798,167 issued to Conner et al.

Fujishita discloses polypropylene fibers having improved heat shrinkage and tenacity (abstract). The fibers may have a nucleus-creating agent, such as dibenzylidene sorbitol (DBS) (claim 10; col. 7, lines 44-46; and col. 2, lines 18-29). Said fibers have a heat shrinkage of 10.3% or less at 150°C for 15 minutes (claim 4). In one embodiment, the inventive fibers have a tenacity of at least 4.59 g/den (Table 1, Example 1). The fibers are preferably flat yarns (i.e., slit

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film or tape fibers) that can be made into a primary backing for a tufted carpet (col. 7, line 46-col. 8, line 36).

Thus, Fujishita teaches the presently claimed invention with the exception of the amount of nucleating agent. Since Fujishita is silent on this issue, one must look to the prior art in order to determine an appropriate amount. Connor teaches polypropylene fibers containing a nucleating agent (abstract). The preferred nucleating agent is 0.1-0.3% by weight of dibenzylidene sorbitol (DBS), di(methylbenzylidene) sorbitol (DMBS), and bis (p-ethylbenzylidene) sorbitol (abstract). Hence, it would have been obvious to one of ordinary skill in the art to employ the nucleating agent in the Fujishita invention in the amount disclosed by Connor. Motivation to do so would be the lack of an explicit teaching in Fujishita.

With respect to the limitation that nucleating agent is MDBS, it is noted that Fujishita does not explicitly teach MDBS. However, as noted above, Connor teaches MDBS is an equivalent nucleating agent to DBS. Hence, it would have been obvious to substitute MDBS as taught by Connor for the DBS of the Fujishita invention since these two compounds have been shown in the art to recognized equivalent nucleating agents for polypropylene fibers.

With respect to the claimed heat shrinkage rate, it is noted that applicant's shrinkage values are measured differently than Fujishita's. While applicant measures the shrinkage rate after only five minutes, Fujishita's values are obtained after 15 minutes. Thus, a direct comparison of the shrinkage values cannot be obtained. However, it is asserted that, if the claimed shrinkage values are not inherently met by the Fujishita invention, said values would be met by the combination of the teachings of Fujishita and Connor.

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With respect to the claimed scattering peak, both Fujishita and Connor are silent. However, it is asserted that the resulting product of the combination of Fujishita and Connor teachings would automatically meet the claimed scattering peak limitation. Support for this assertion is found in the use of like materials and like processes to produce said product. Therefore, claims 1-27 are rejected as being obvious over the cited Fujishita and Connor references.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Cheryl Juska whose telephone number is 703-305-4472. The Examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


CHERYL A. JUSKA
PRIMARY EXAMINER

cj
June 30, 2003